RECEIVED
CENTRAL FAX CENTER
JAN 1 0 2006

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor:	Isaac LEVANON *et al*
Assignee:	3DVU, Inc.
Serial No.:	10/035,981
Filed:	December 24, 2001
Title:	System And Methods For Network Image Delivery .....
Examiner:	Philip B. Tran
Group:	2155
Confirmation No.:	3619
Attorney Docket:	927/2

Declaration of Inventors

We, Isaac Levanon and Yoni Lavi, being first duly sworn, depose and say:

1. We hereby declare that we believe we are the original, first and co-inventors of the subject matter which is claimed herein for which a utility patent is sought on the invention described and claimed in the above-identified application; that we have reviewed and understand the contents of the application, including the claims; and, that we acknowledge our duty to disclose to the PTO information of which we are aware which is material to patentability of this invention as defined in 37 C.F.R. 1.56.

2. Our invention was reduced to practice in (Israel) prior to 25 July 2000 – the date of filing by Skoll of the application which matured into US Patent 6,671,424.

3. The herein invention was first defined in October 1999, we had a working model in December 1999 and we can establish that we had the first working product on about 24 January 2000.

The screenshot evidence of Exhibit A, relied upon when making the above assertion, is a proof of actual reduction to practice which requires a showing that the apparatus actually existed and worked for its intended purpose (MPEP 715.07(III). The screenshots in Exhibit A further establish possession of the whole invention claimed as it was part of a released product prepared in January 2000 and modified thereafter.

The image of Exhibit B illustrates a web based application created at the end of 1999 where by the invention is an integral part of the web solution and shown in upper left window as "Proprietary FlyOver™ - 3D Airfield Imagery".

Exhibit C shows files confirming that the Invention was introduced in Word Document named "GA Central – Executive Summary.doc" dated 3/20/2000 and Power Point presentation named GA Central2.ppt dated 5/13/2000.

Exhibit D is one slide from the PowerPoint presentation listed in Exhibit C. Exhibit D presents "The FlyOver™ A 3D Visualization Technology" as an explanation of the invention of image delivery with dynamic viewing frustum of six degrees of freedom optimized for narrowband communication channels as low as 4 kilobyte per second, where by the image is a screenshot captured at the end of 1999 of the application based on the invention.

Exhibit E illustrate the preprocessor subdivides the image into a quad-tree of compressed images. The images in the Exhibit E are screenshot captured by running the application based on the patent as of late 1999.

This process can be alternately described as the source image data is preferably pre-processed to obtain a series K_{1-N} of derivative images of progressively lower image resolution. The source image data, corresponding to the series image K_o, is also subdivided into a regular array such that each resulting image parcel of the array has a 64 by 64 pixel resolution where the image data has a color or bit per pixel depth of 16 bits, which represents a data parcel size of 8K bytes. The resolution of the series K_{1-N} of derivative images is preferably related to that of the source image data or predecessor image in the series by a factor of four. The array subdivision is likewise related by a factor of four such that each image parcel is of a fixed 8K byte size, as is explained in the patent application.

This is further illustrated in Exhibit F where the images are screenshots from the patent 1999.

The viewer (client) uses the patent application's method to optimize the streaming of network image over narrowband communication. The client included a 3D renderer that provided views of the image from arbitrary location with full maneuverability – Dynamic Viewing Frustum.

We assert that the initial implementation of the invention has been completed in 1999. It was used to provide a perspective 3D view of imagery and allowed the user to "fly over" the image interactively. All principles and implementation details disclosed in the patent were in use by this program.

The technology is illustrated again in the screenshots and presentation in Exhibit G taken by the actual invention as of late 1999.

These screenshots illustrate the invention, fully functional, as described in our patent applications and as was implemented and presented from late 1999.

Exhibit H is a series of images 1, 2, 3, and 4 on a timeline where 1 is the earliest and 4 is the latest, for the same operator controlled image viewpoint frustum, where the update image parcel is clearly noticeable from image 1 through 2 and 3 to image 4. The update picture parcel is requested by the client and associated with a request queue. The issuing of said request is over a limited bandwidth communications channel. Such picture parcel request queue over narrowband bandwidth communication channel as illustrated in Exhibit G, is shown in the timeline images in Exhibit G. Whereby, within time (pictures 1 to 4 in Exhibit H), the picture parcel request from the controlled image viewpoint is progressively building the picture parcels from 64 by 6y pixels tiles, until the image reached its full resolution as in image 4 of Exhibit G. This is explaining several claims of our patent, including 1, 2, 3, 4, 5, 6, 8, 11, and 12. Other claims that have to do with the portable display client system such as, image compression, display resolution, video memory and navigational controls (for example), are illustrated in Exhibits E, F, and G. And the same Exhibits E, F, G covers the packet data streaming over communication network as in the related claims. Some of our claims are internal calculations, such as the preprocessing of the image and the compression, which can be illustrated only, with no screenshot to show them.

The statement of fact above establishes that the claimed subject matter has been relied upon and existed prior to Skoll reference.

4. Our company was originally formed as GACentral.com, Inc. change its name to FlyOver Technologies, Inc. in early 2000 and changed it name again to 3DVU Inc. relatively recently, so the original materials bear the company names GACentral.com and FlyOver Technologies.

5. In August 2000, we first met with the patent attorney Gerald B. Rosenberg, NewTechLaw, Suite 520, 285 Hamilton Avenue, Palo Alto, California 94301, to discuss this invention, companion inventions and preparation of patent applications. Over the succeeding months, Mr. Rosenberg prepared the provisional applications, which was filed by his office on 27 December 2000.

6. The evidence submitted is sufficient to establish a reduction to practice of the invention in the US or a NAFTA or WTO member country prior to the effective date of the Skoll reference.

7. We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Isaac Levanon

Dated: December 27, 2005

Yoni Lavi

Dated: December 27, 2005